

known physiologic parameter, a mode-switch status or a non-rate-responsive operational status.

20. (NEW) A computer readable medium having a stored instruction set comprising the following instructions:

instructions for receiving a first output signal from a first of at least two sensors coupled to a patient;

instructions for receiving a second output signal from a second of at least two sensors coupled to the patient;

instructions for comparing the first output signal to a known physiologic parameter of the patient;

instructions for comparing the second output signal to the known physiologic parameter of the patient; and

instructions for determining whether the first output signal compares more favorably to the known physiological parameter than the second output signal, wherein

(i) in the event that the first output signal compares more favorably, decoupling the second output signal from the medical device,

(ii) in the event that the second output signal compares more favorably, decoupling the first output signal from the medical device, or

(iii) in the event that the first output signal and the second output signal substantially equally compare to the known physiologic parameter, refraining from performing a sensor mode switch between the first and the second of the at least two sensors.

REMARKS

Claims 1-3 are herein amended and new claims 4-20 have been added; thus, claims 1-20 are presented for examination on the merits. None of the amendments presented herewith should be construed as a disclaimer of any subject matter and each

amendment herein is not intended as a narrowing amendment in view of any prior art and is not tendered for reasons related to patentability under 35 U.S.C. §101 et seq.

The inventors hereof request entry of this Preliminary Amendment and favorable consideration of the claims presently pending in the application. The inventors respectfully assert that no New Matter is introduced by way of the amendments tendered herewith and earnestly solicit favorable examination of the application.

The amended claims appear below in a section entitled, "**VERSION OF CLAIMS SHOWING CHANGES MADE**," for ease of review by the Examiner and, of course, the full set of claims (as amended herein) appears above.

The inventors acknowledge an inherently limited knowledge of and appreciation for every arguably equivalent structure and/or process for every limitation included in the presently pending and amended claims. In addition, the inventors expressly reserve the right to later refute any presumption related to such arguably equivalent structure and/or process and respectfully asserts that any such structure and/or process must have been foreseeable at the time the instant application was filed. That is, the literal limitations of the appended claims should not be deemed limited where, as a practical matter, the inventors have not has an opportunity to craft limitations covering an *unforeseen* equivalent structure and/or process.

Any amendment to the pending claims made herein may be attributed to the desire of the inventors to reasonably and clearly state, within the confines of the English language, the subject matter comprising the present invention. As a result, such amendments not expressly related to prior art should not be construed as a waiver or disclaimer of any portion of the scope of the claims or an admission that such claims do not cover any particular equivalent structure and/or process unless expressly stated to the contrary herein.

The Examiner is invited to contact the undersigned with respect to this Preliminary Amendment and any matter related to the above-captioned patent application.

Respectfully submitted,

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VERSION OF CLAIMS SHOWING CHANGES MADE

1. (AMENDED) An automatic rate response sensor mode switch implemented in a[n implantable] medical device comprising:
 - a plurality of integrated sensors coupled to a medical device;
 - means for testing a status of said plurality of integrated sensors; and
 - for a one of said plurality of integrated sensors that fails said testing, means for isolating the one of [a problem sensor among] said plurality of integrated sensors and for [to] switching the coupling of the sensors to the medical device so that said one of the plurality of integrated [and operate with only the remainder] sensors is decoupled from said medical device.
2. (AMENDED) The mode switch of claim 1 wherein said switching remains fixed to operate with said remainder sensors until a reset of the coupling is executed.
3. (AMENDED) The mode switch of claim 1 wherein said means for isolating operates on a temporary basis and [reconnects] further comprises means for re-coupling said [problem] sensor to said medical device [when a problem is resolved].
4. (NEW) A mode switch according to claim 1, wherein said means for testing status comprises:
 - a comparison of an output signal from each of at least a pair of said plurality of integrated sensors;
 - an impedance check of at least one of said plurality of integrated sensors;
 - a predetermined series of movements performed by a patient who is coupled to said plurality of integrated sensors; or
 - a comparison of the output signal acquired during a period of known activity of the patient.

5. (NEW) A mode switch according to claim 4, wherein said means for testing is invoked either manually or automatically by an electronic circuitry of said medical device.
6. (NEW) A mode switch according to claim 1, wherein said medical device is an implantable medical device.
7. (NEW) A mode switch according to claim 6, wherein said implantable medical device is an implantable pulse generator.
8. (NEW) A mode switch according to claim 7, wherein at least one of said plurality of integrated sensors comprises: an accelerometer, a pressure sensor, an impedance sensor, an acoustic sensor, an activity sensor, a piezoelectric sensor or a heart rate sensor.
9. (NEW) A mode switch according to claim 1, wherein said isolating and for switching comprises a means for interrupting an electrical coupling between the sensor and the medical device.
10. (NEW) A mode switch according to claim 9, wherein the means for interrupting the electrical coupling comprises providing a null value signal from said sensor.

11. (NEW) A method of performing sensor mode switching in a medical device, comprising:
- receiving a first output signal from a first of at least two sensors coupled to a patient;
 - receiving a second output signal from a second of at least two sensors coupled to the patient;
 - comparing the first output signal to a known physiologic parameter of the patient;
 - comparing the second output signal to the known physiologic parameter of the patient; and
 - determining whether the first output signal compares more favorably to the known physiological parameter than the second output signal, wherein
 - (i) in the event that the first output signal compares more favorably, decoupling the second output signal from the medical device,
 - (ii) in the event that the second output signal compares more favorably, decoupling the first output signal from the medical device, or
 - (iii) in the event that the first output signal and the second output signal substantially equally compare to the known physiologic parameter, refraining from performing a sensor mode switch between the first and the second of the at least two sensors.
12. (NEW) A method according to claim 11, wherein the first of said at least two sensors comprises an accelerometer, a pressure sensor, an impedance sensor, an acoustic sensor, an activity sensor, a piezoelectric sensor or a heart rate sensor.
13. (NEW) A method according to claim 11, wherein said known physiologic parameter of the patient comprises a heart rate, a sleep state, or a blood pressure.
14. (NEW) A method according to claim 11, wherein the medical device comprises an implantable medical device.

15. (NEW) A method according to claim 14, wherein said implantable medical device is an implantable pulse generator.
16. (NEW) A method according to claim 15, wherein said implantable pulse generator is an implantable cardioverter-defibrillator.
17. (NEW) A method according to claim 11, wherein said method is invoked in response to a manually activated signal or an automatically activated signal.
18. (NEW) A method according to claim 17, wherein said manually activated signal is provided by:
 - placing a programming head of a device programmer in operational proximity to said medical device; and
 - initiating a telemetry sequence between said programmer and said medical device wherein said telemetry sequence comprises the receiving and, as applicable, decoupling steps of said method.
19. (NEW) A method according to claim 11, further comprising a step of storing an information set on a computer readable medium, wherein said information set relates to at least a one of the following: the first output signal, the second output signal, the known physiologic parameter, a mode-switch status or a non-rate-responsive operational status.

20. (NEW) A computer readable medium having a stored instruction set comprising the following instructions:

instructions for receiving a first output signal from a first of at least two sensors coupled to a patient;

instructions for receiving a second output signal from a second of at least two sensors coupled to the patient;

instructions for comparing the first output signal to a known physiologic parameter of the patient;

instructions for comparing the second output signal to the known physiologic parameter of the patient; and

instructions for determining whether the first output signal compares more favorably to the known physiological parameter than the second output signal, wherein

(i) in the event that the first output signal compares more favorably, decoupling the second output signal from the medical device,

(ii) in the event that the second output signal compares more favorably, decoupling the first output signal from the medical device, or

(iii) in the event that the first output signal and the second output signal substantially equally compare to the known physiologic parameter, refraining from performing a sensor mode switch between the first and the second of the at least two sensors.